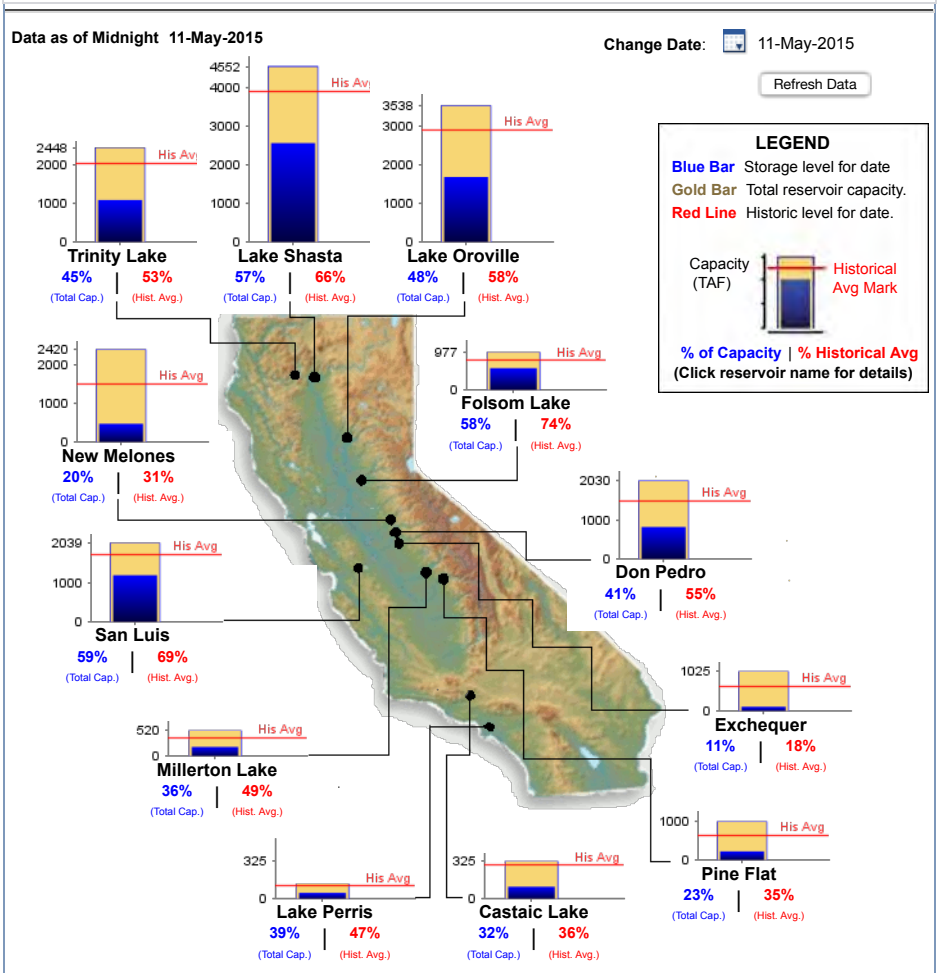
California Data Exchange Center - Reservoirs

CONDITIONS FOR MAJOR RESERVOIRS: 11-MAY-2015



Español

Securing our Future by Investing in our Water Resources, Environment & Community

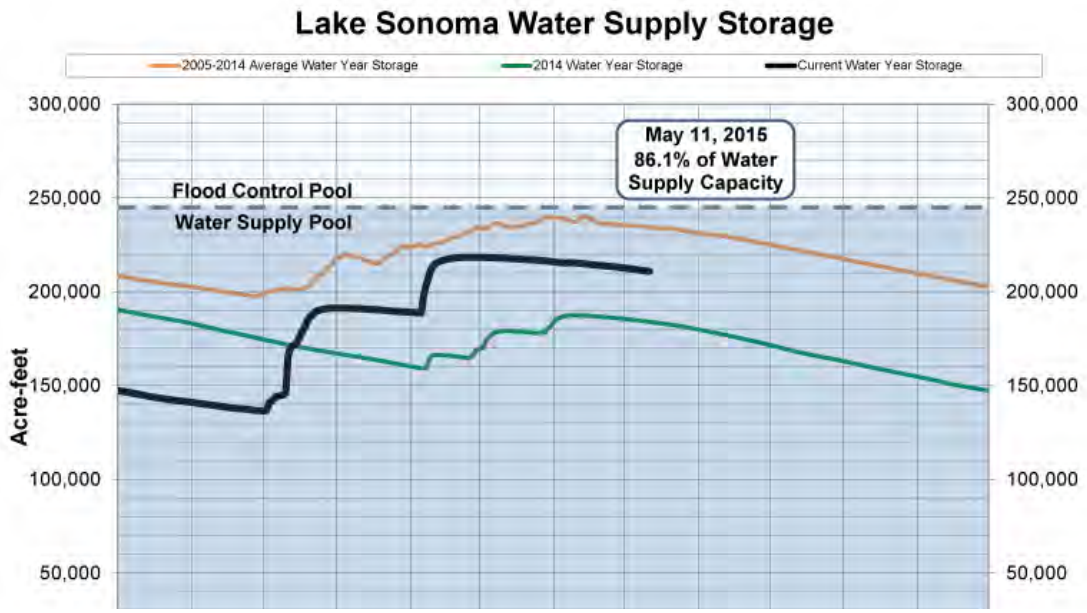
Home Water Supply **Current Water Supply Levels**

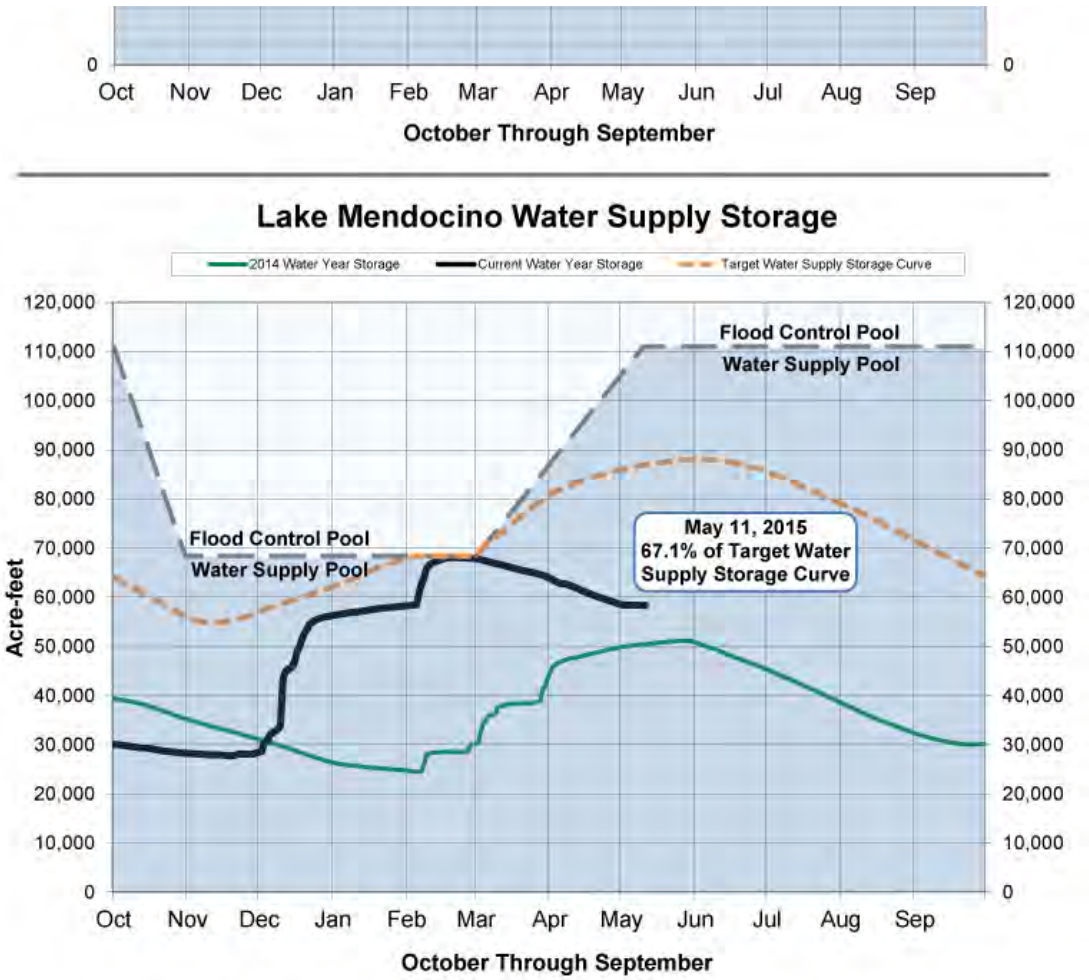
Current Water Supply Levels

Water Supply Conditions at Lake Sonoma, Lake Mendocino

The Sonoma County Water Agency manages the water supply storage within Lake Mendocino and Lake Sonoma. The U.S. Army Corps of Engineers operates the flood control storage of each reservoir. Lake Mendocino relies on year-to-year rainfall to fill and water diverted from the Potter Valley Project. Lake Mendocino is a key drinking water source for the cities of Ukiah, Healdsburg, Cloverdale and Hopland, and also provides water to the Water Agency's Russian River water supply system. Water releases from Lake Mendocino support flows in the Russian River for the threatened Chinook salmon and steelhead trout during the fall and winter seasons. Lake Sonoma is about four times larger than Lake Mendocino and can provide multiple years of water supply. Lake Sonoma provides a majority of the Water Agency's service area with its drinking water. Learn more about current drought conditions here.

Please note: these visual charts are updated weekly. Click here to view water supply data tables updated daily.





**Note each day after March 1, the Water Supply Pool in Lake Mendocino is allowed to encroach into the Flood Control Pool, thus resulting in changing Water Supply and Flood Control pool numbers. The Target Water Supply Storage Curve represents modeled daily average storage of Lake Mendocino for periods of Normal water supply conditions as determined by the Russian River System Hydrologic Index and Dry Spring 1 conditions as determined by combined Lake Pillsbury and Lake Mendocino storage on June 1. The criteria for these conditions is defined in the State Water Resources Control Board Decision 1610.*

About Lake Sonoma and Lake Mendocino

The Sonoma County Water Agency (Water Agency) is the local cost-sharing partner for Lake Mendocino and Lake Sonoma, and determines the amount of water to be released when the lake levels are in the water supply pools. The US Army Corps of Engineers determines the amount of water to be released when the lake levels are above the water supply pools and in the flood control pools.

The Russian River is a managed river system with reservoir releases controlling river flows, especially throughout most of the summer and fall. When tributary stream flows are

low, the Water Agency releases water stored in the reservoirs to supplement the natural flows in the Russian River to provide adequate flows for water supply, recreation and aquatic habitat. A release from a reservoir can be categorized as being of 'pass-through water' or 'stored water'. The term 'project water' is often used instead of stored water and is used to describe water that is present because of the dam and reservoir project. Pass-through water is water flowing into the reservoir that is not stored in, but passes through, the reservoir. Project water releases to supplement the natural flows in the Russian River and Dry Creek are necessary to meet mandatory minimum streamflow requirements that exist for both of these watercourses.

Current Reservoir, Russian River, and Water Transmission System Data

View in-depth data tables for Lake Mendocino, Lake Sonoma, the Russian River, and the Water Transmission System.

Rainfall Data

Current Water Year vs. Average For This Date

35.37"
AVERAGE

25.41"
CURRENT

29.08"
AVERAGE

23.53"
CURRENT

- UKIAH BASIN -
2014-10-01 - 2015-05-10

- SANTA ROSA BASIN -
2014-10-01 - 2015-05-10

View the National Weather Service's long-term weather forecast for Ukiah and Lake Mendocino.

QUICK LINKS

Contact Us

NOTICE OF PUBLIC HEARING FOR SONOMA COUNTY BOARD OF SUPERVISORS

WHO/WHAT: The County of Sonoma is proposing an ordinance amending Chapter 25B of the Sonoma County Code related to water well construction standards.

County staff has determined that the proposed ordinance is exempt from the California Environmental Quality Act ("CEQA") pursuant to Sections 15307 (Actions by Regulatory Agencies for Protection of Natural Resources), 15308 (Actions by Regulatory Agencies for Protection of the Environment), and 15061(b)(3) (Common Sense Exemption) of the State CEQA Guidelines.

WHERE & WHEN: The Board of Supervisors will hold a public hearing on June 9, 2015, 2:10 p.m. at the Sonoma County Board of Supervisors Chambers, 575 Administration Drive, Room 102A, Santa Rosa, CA 95403, to consider the proposed ordinance and exemption from CEQA.

ADDITIONAL INFORMATION: The proposed ordinance and other details of the project are available at the Permit and Resource Management Department at 2550 Ventura Avenue, Santa Rosa, CA 95403, or on the County's website at: http://sonomacounty.ca.gov/PRMD/News/Draft-Water-Well-Construction-Standards-Ordinance .

HOW TO GET INVOLVED: All interested parties are hereby invited to be present and heard on the matters described in this notice. If you have any questions or concerns regarding the proposed project please contact Nathan Quarles at (707) 565-1146 or via email at nathan.quarles@sonoma-county.org.

Written comments may also be submitted prior to, or at the hearing. Please submit written materials 10 days prior to the hearing date so that it can be distributed and considered by the decision-makers. Any written material submitted after this date will be distributed to the decision-makers prior to or at the hearing.

If you challenge the decision on the project in court you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Permit and Resource Management Department at or prior to the public hearing.

PUBLISH ONCE: Press Democrat

DATE: May 14, 2015

Valley of the Moon Water District
Groundwater Sustainability Agency Core Principles

Core Principles

- Groundwater should be locally and collaboratively managed to address unique basin conditions and challenges.
- Public input regarding sustainable groundwater solutions shall be required.
- Maximize cost effective demand reductions and offsets prior to implementing costly engineered solutions.
- Establish a governance structure where the lead local agency officially recognizes the current Sonoma Valley Basin Advisory Panel.
- The State and County's role should complement and support the goal of local sustainable groundwater management.

Goals

- Sonoma Valley's groundwater shall be managed sustainably so that it is available for future generations, while taking into consideration health and human safety, environmental and economic uses of the water.
- Provide ethical and transparent government that is efficient and prudent with ratepayer money.
- Expedite the timeline outlined in the Legislation to reach sustainability.

Chapter 25B ~~WATER WELLS~~ Draft Water Well Construction Standards

Article I. – In General

Article II. – Procedure and Construction Requirements

Article III. – ~~Abandonment and Destruction of Wells Well Water Treatment and~~ Well Abandonment

Article IV. – Well Water Treatment

Article ~~I~~V. – Well Reports

Article VI. – Enforcement and Penalties

Article VII. – ~~Penalties~~ Alternative Materials, Design and Methods

~~Article VII. – Exemption from Well Standards~~

~~Appendixes~~

5/12/2015

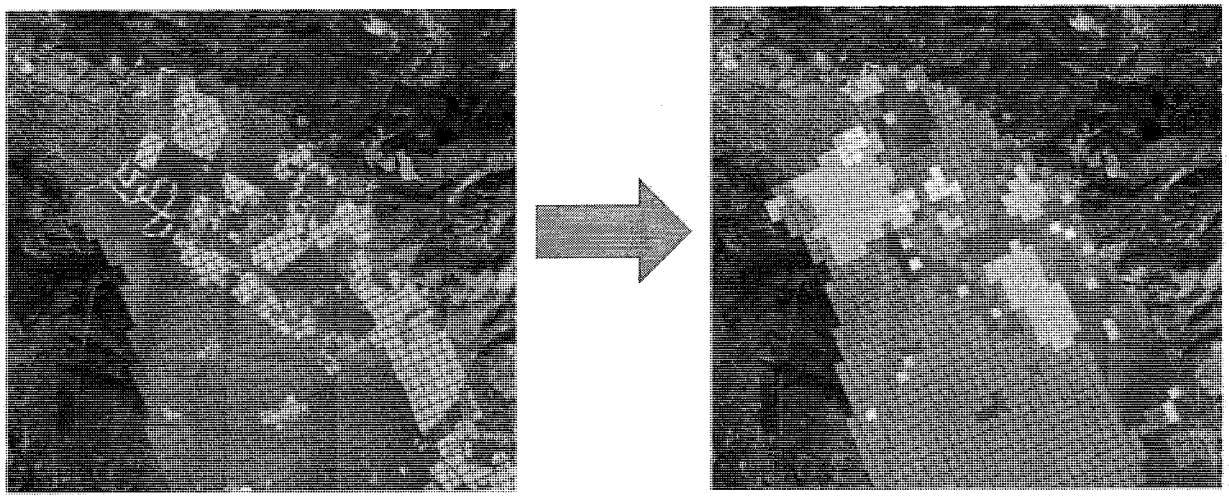
APPROACH:

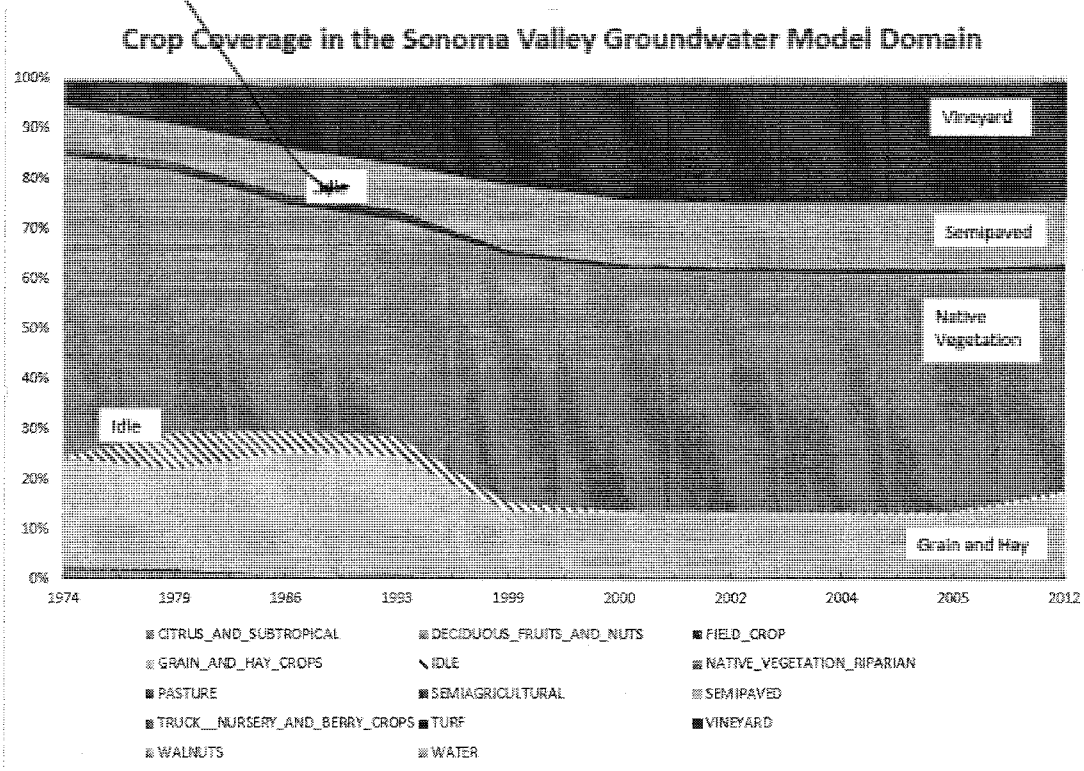
The Farm Management Package is a sophisticated modeling package that estimates agricultural demands. FMP is incorporated into the groundwater modeling software MODFLOW. FMP requires information concerning crops, land use, climate and other parameters. The FMP grid is the same as the numerical groundwater model domain of the Sonoma Valley Groundwater Model. There are many inputs required to run the model. The following model inputs are addressed in this document:

1. **Derivation of crop grids**
2. **Farms or Water Accounting Units**
3. **Crop Coefficients and Irrigation Scheduling**
4. **Precipitation and Potential Evapotranspiration**

Derivation of crop grids

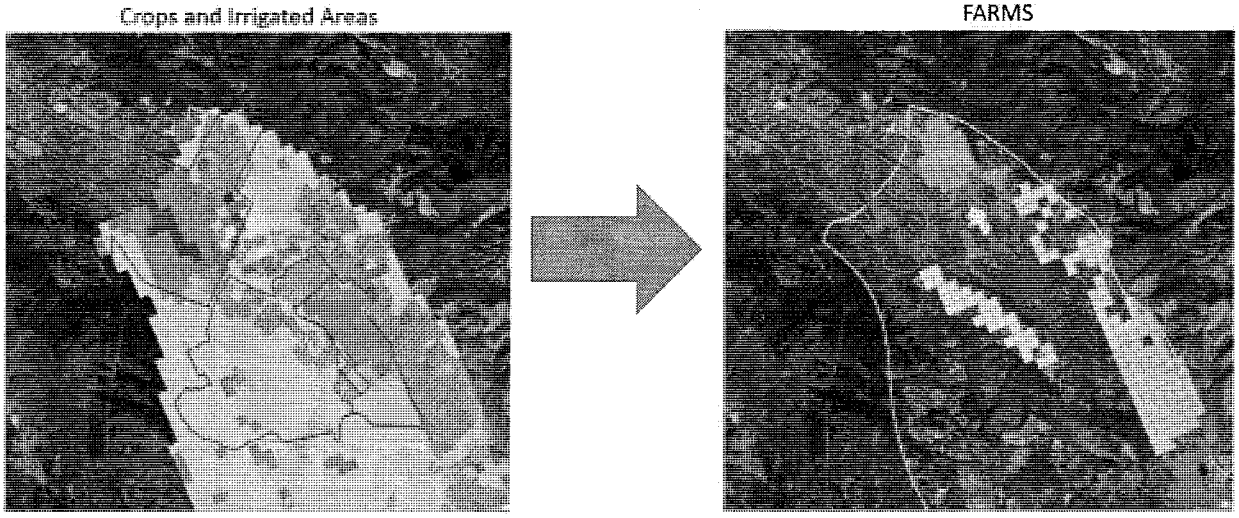
1. Calculate maximum crop type by area for each cell.





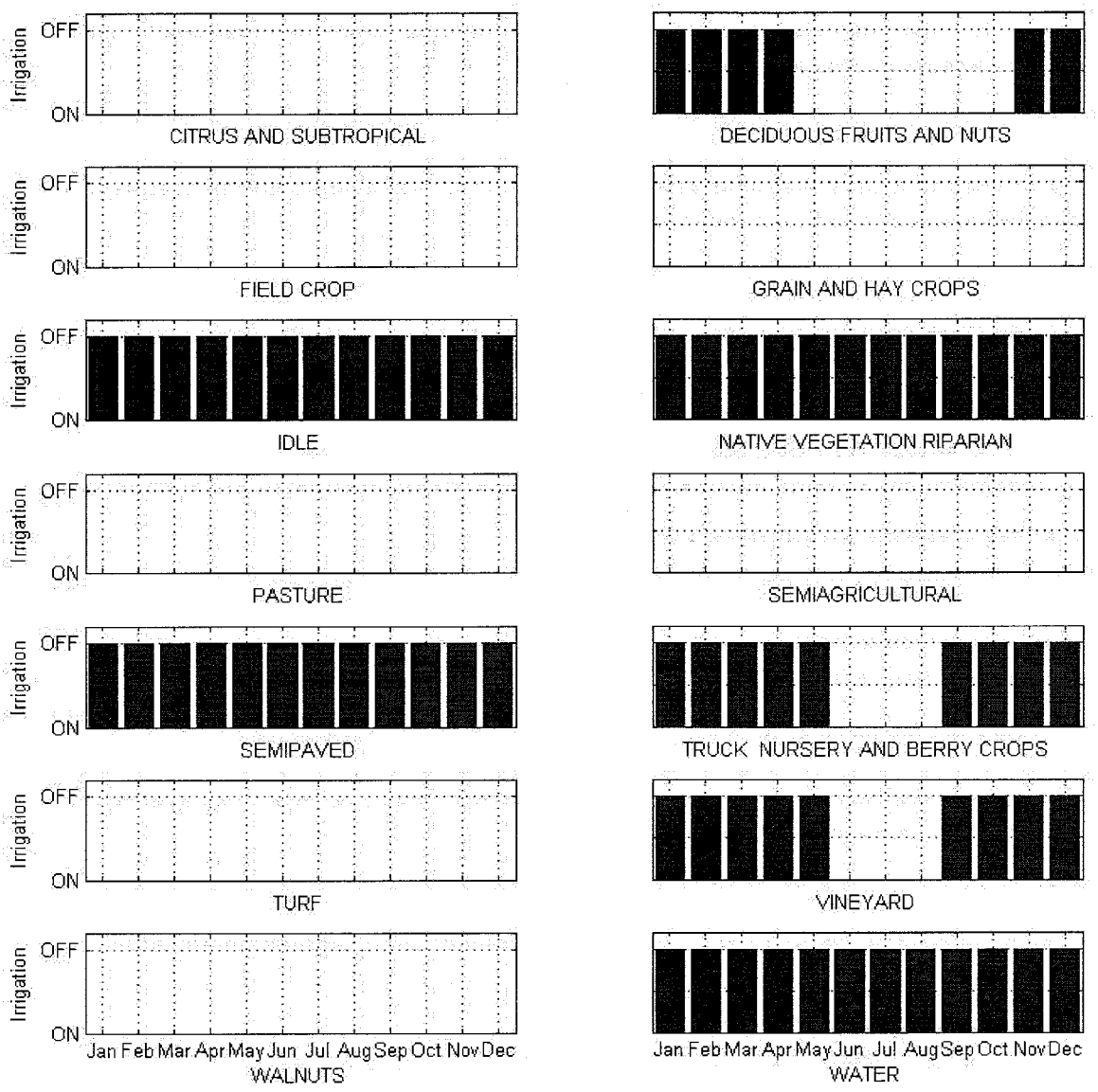
Farms or Water Accounting Units

Overlay irrigated areas identified in DWR land use dataset on crops. Create contiguous farms.

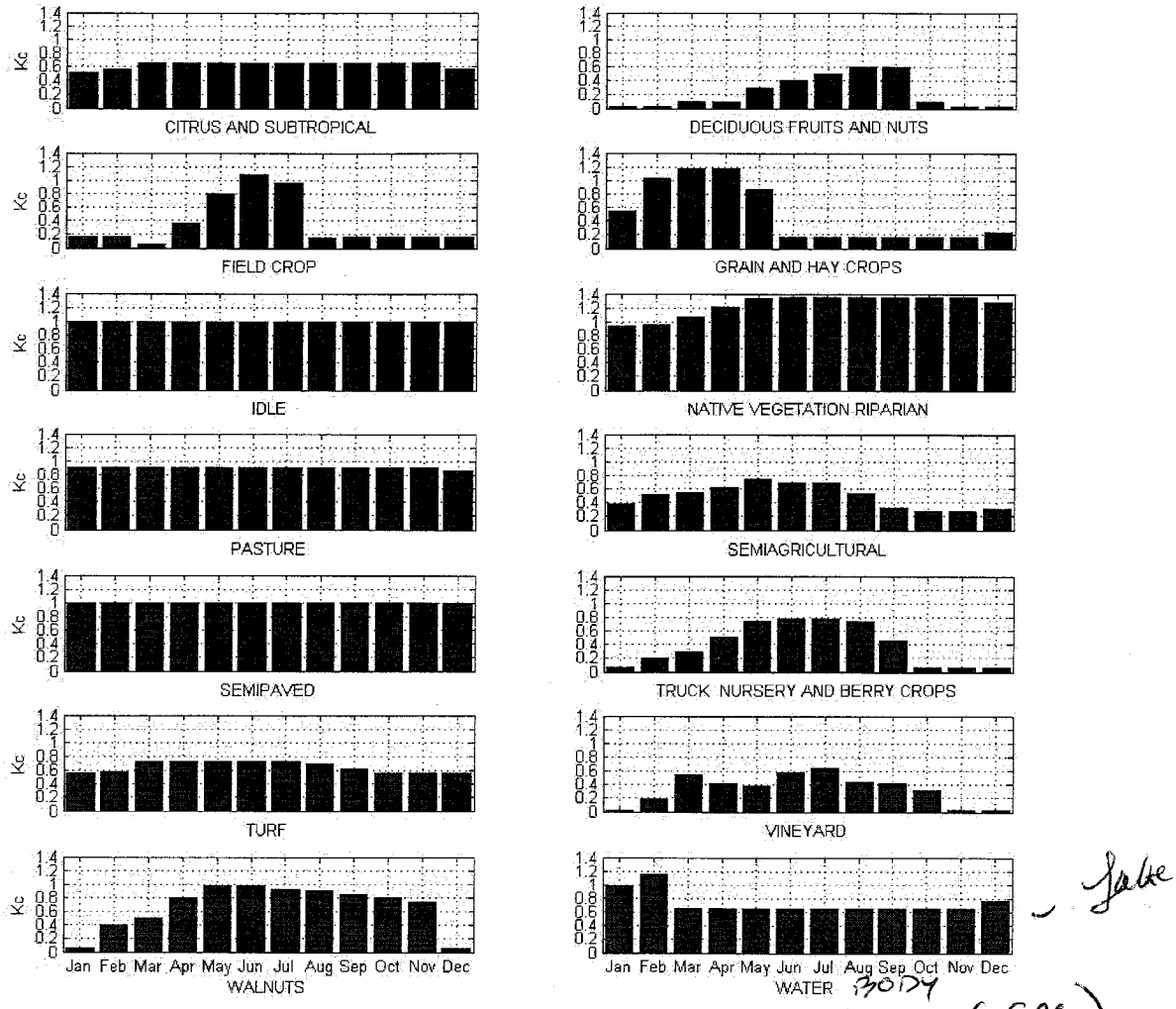


Crop Coefficients

Crop coefficients were derived principally from Bulletin 56, FAO. Vineyard crop coefficients for Vineyards were derived from "Russian River Applied Water Estimates" by Davids Engineering, 2013.

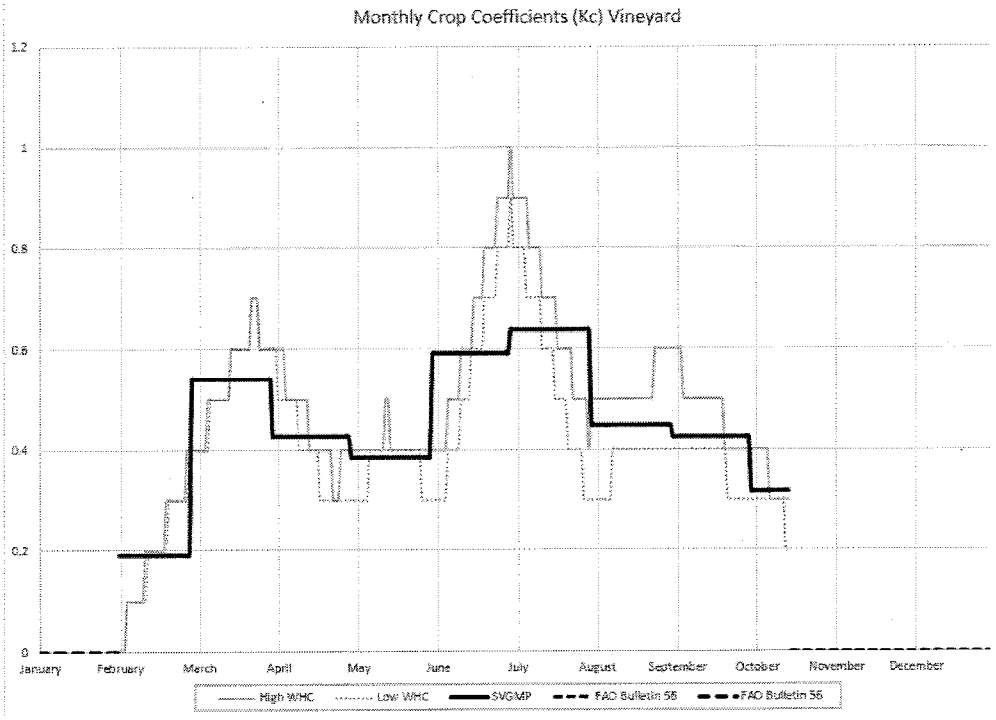


Irrigation Schedule

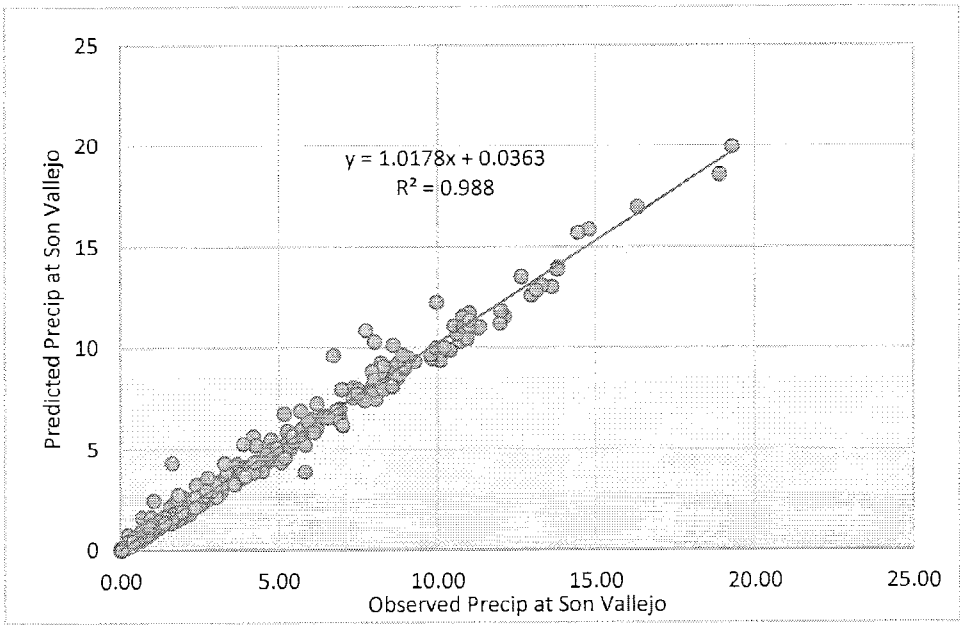


gen. from Food + Ag Org. (FAO)

Crop Coefficients

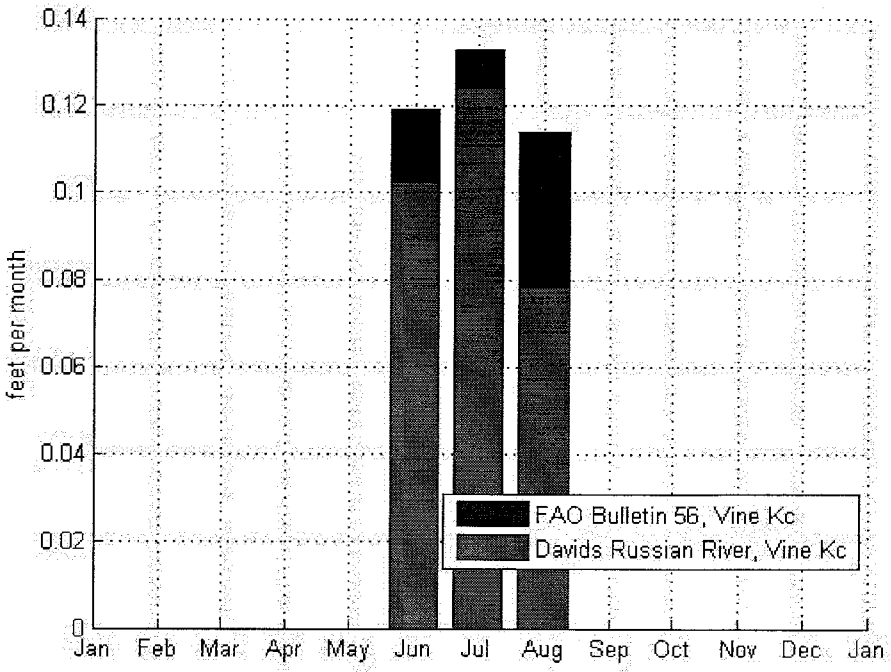


Vineyard Crop Coefficients from Davids Engineering, 2013.

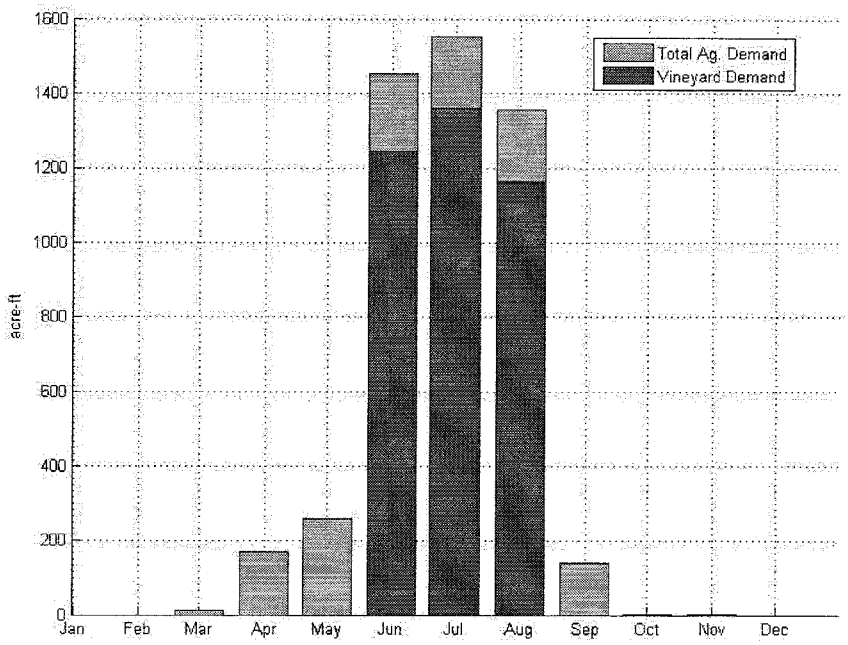


Observed versus predicted precipitation, Vallejo House

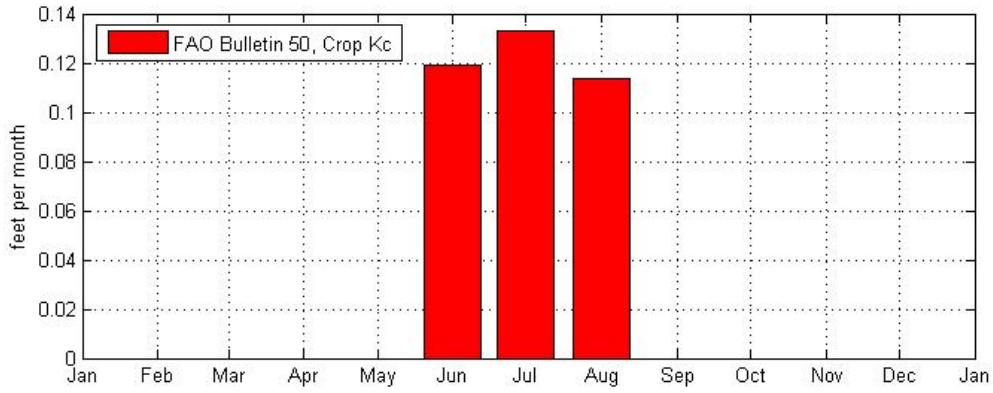
RESULTS

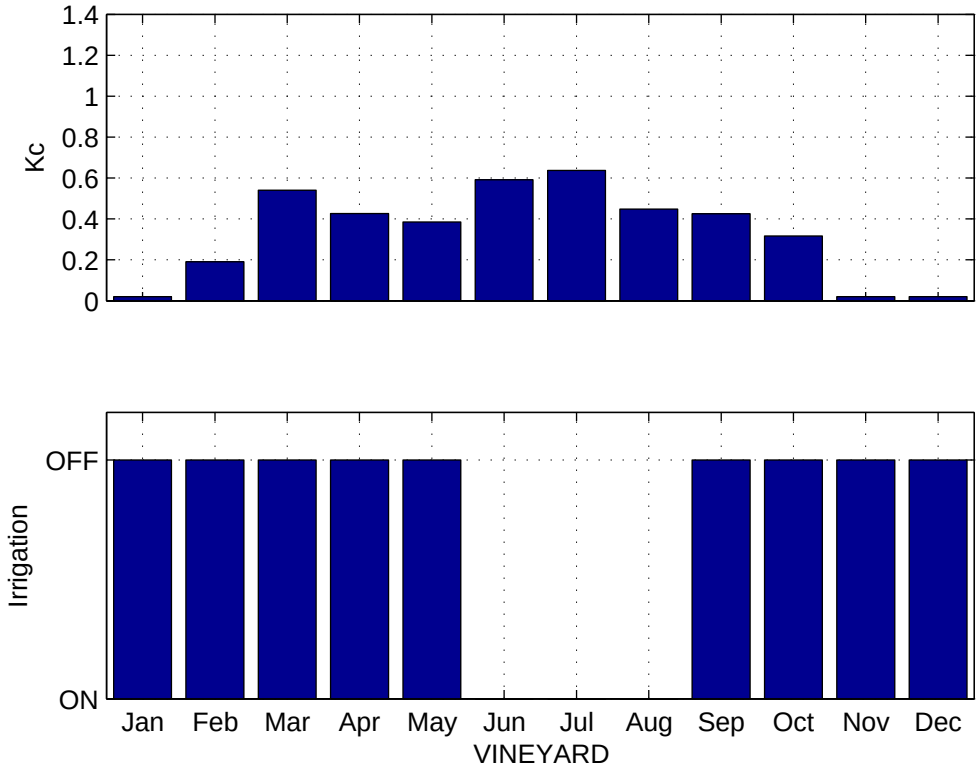


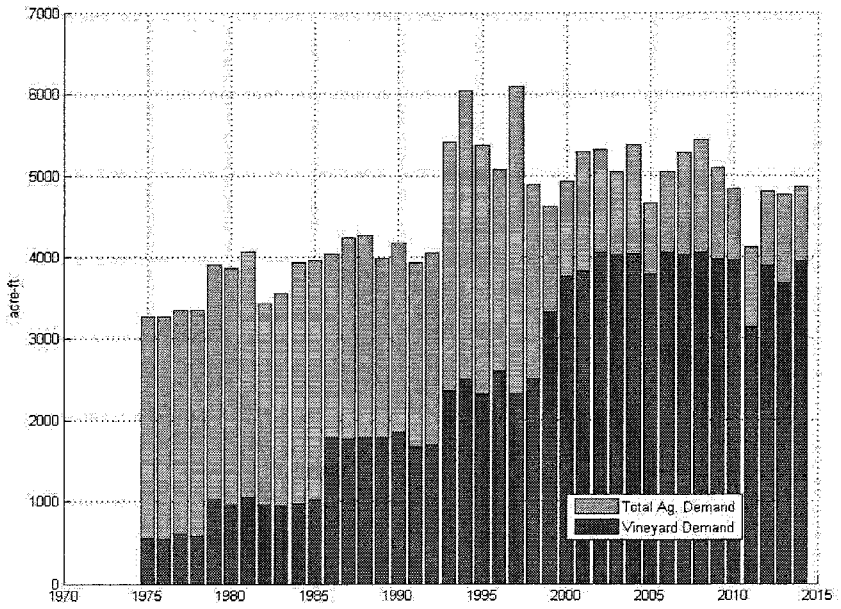
Monthly Irrigation Depths, Vineyards



Monthly Demands by Agriculture


FAO Bulletin 50, Crop Kc
feet per month
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan


1.4
1.2
1
0.8
0.6
0.4
0.2
0
Kc
OFF
ON
Irrigation
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
VINEYARD



Total Monthly Agricultural Demands

Application of MODFLOW Farm Process to Estimate Agricultural Groundwater Pumping

Crop Irrigation Requirement For each node (CIR)

$$CIR = T_i + E_i$$

where

CIR = Crop Irrigation Requirement of any model cell in a farm

T_i = Transpiration supplied by irrigation ($T_i = T_{act} - T_{gwss} - T_{psss}$)

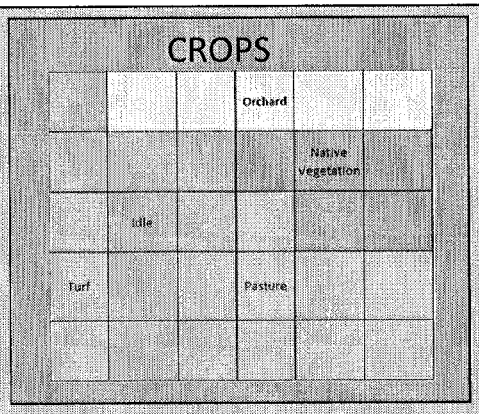
T_{act} = Actual crop transpiration requirement at steady state

T_{gwss} = Portion of actual transpiration supplied by ground water at steady state

T_{psss} = Portion of actual transpiration supplied by precipitation at steady state

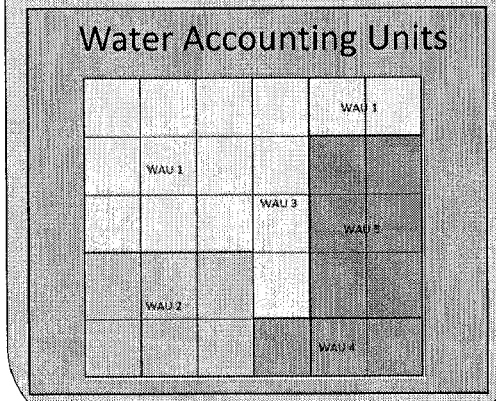
E_i = Evaporation losses from irrigation (E_i is an estimate of the compensation needed for surface-evaporative losses, and defined to vary proportionally to T_i), and

Crop Transpiration calculated as: Ti = PET x KC;
Where
PET = Monthly Potential Evapotranspiration
KC = Monthly Crop Coefficients.



Determine Water Accounting Unit (WAU) Delivery Requirement for Each WAU

- $WAUDR = \sum \left(\frac{CIR}{OFE}\right)$
- OFE = On-Farm Efficiency



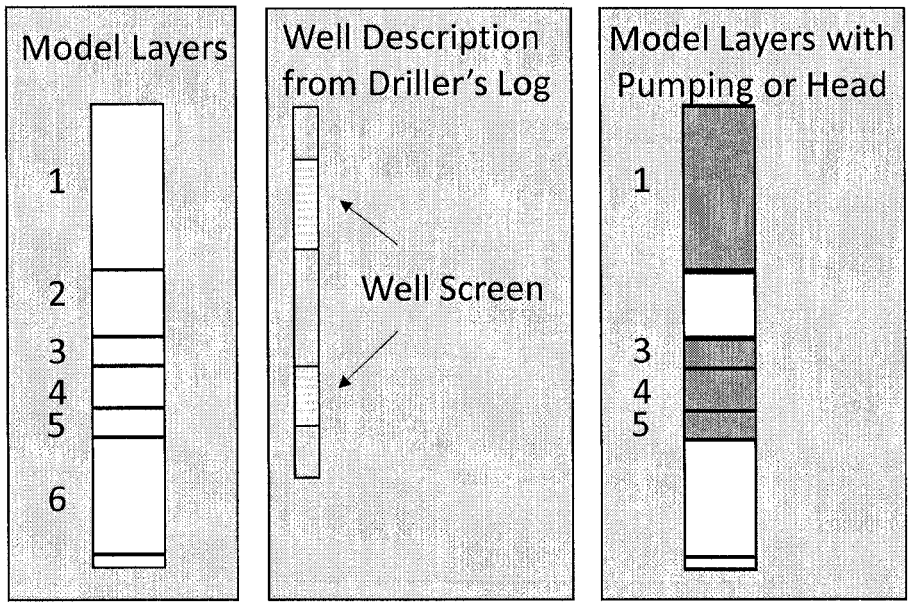
Assign WAUDR to Wells Associated with Farm.

- Use Delivered Water First if Exists.
- Qwell = WAUDR/NUM WELLS
- NUM WELLS = # of Wells associated with Each WAU
- Pumping can be limited by WAU or Well for different scenario testing

NOTES:

- Crops and Farms are not static.
- Water Accounting Units are typically amalgamations of smaller farms identified in the land use datasets.
- Factors that control crop demands are specified from the literature and local studies if available.
- These factors can be adjusted seasonally or to incorporate influence of altered farming practices.

Assigning Pumping to Wells and Calculating Predicted Heads



Wells are activated in the model depending upon installation date and inactivated when destroyed.
Wells without perforation information are assumed to extract water from all layers.
For head observations in multi-layer wells, predicted head is a function of the heads calculated in all perforated layers.

5/12/2015

APPROACH:

1. Obtain Groundwater Pumping records from California Department of Public Health Division of Drinking Water and Environmental Management. We retrieved records for 56 water suppliers within entire watershed and 38 from model area. Pumping records were also retrieved drirectly from VOMWD and City of Sonoma.

Source Information

C. WATER SOURCE INFORMATION
(Attach a list if more space is needed)

Name of Source	Type of Source (Well, surface, spring or purchased)	Status (Active or Stand-by)
1. WELL	WELL	ACTIVE
2.		

A. Source Information: Please verify the list of water sources below. Note any sources not listed below.

Source Name	Type (Well, Spring, Surface)	Status (Active or Stand-by)
WELL 01		Active
1.		
2.		

Demand Volume

9. FINISHED WATER PRODUCED, PURCHASED AND SOLD

	Water Produced (million gallons)			Water Purchased (million gals.)	Water Sold (million gals.)	
	Total	GW	SW		PWS	Other (Ag)
Maximum Day	?	?	0	0	0	0
Max. Month	0.6	0.6				

E. TOTAL ANNUAL WATER PRODUCED, PURCHASED AND/OR SOLD

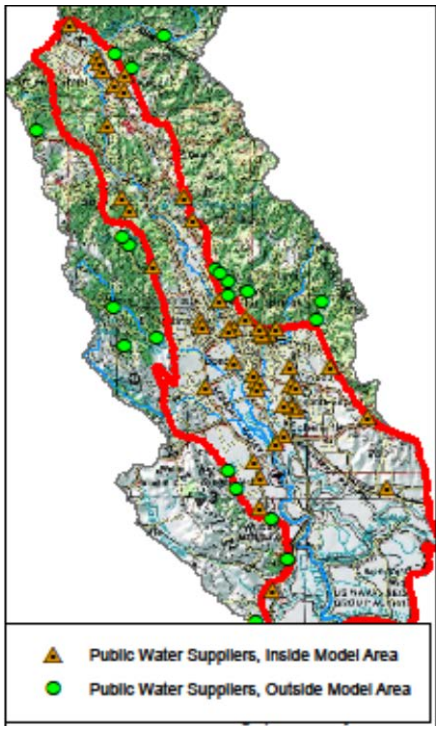
Check here if there are no meters to measure water usage _____

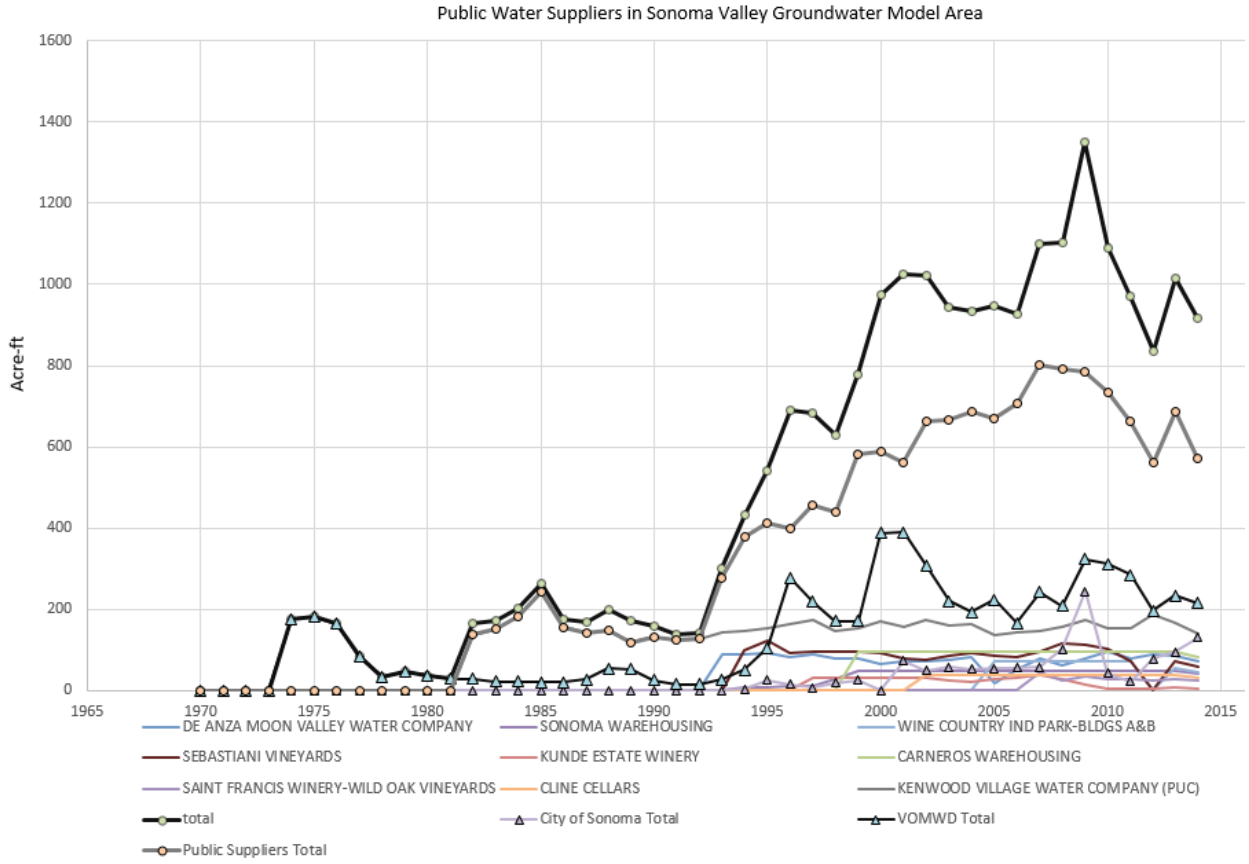
Check here if these figures are based on an estimate ✓ FOR PERIOD APRIL '94 - MARCH '95

	Gallons Produced By Water System	Gallons Purchased From Others
Total Annual	32.4 M.G.	0
Maximum Month	4.5 M.G.	0
Maximum Day	151,000 GALLONS	0

Month of Maximum Production: AUGUST

2. Parse, correct, and interpolate data into model stress periods. Original data is yearly demand, and was converted to monthly. VOMWD is in monthly.
3. Assign pumping demands to wells in MODFLOW. Well construction information is contained for a majority of the systems, but is unknown for some. For unknown the nearest well in database was used.





APPLICATION OF METHOD 1 FOR ESTIMATING RURAL DOMESTIC GROUNDWATER PUMPING IN THE SONOMA VALLEY GROUNDWATER MODEL DOMAIN –SONOMA VALLEY TAC

5/12/2015

APPROACH:

1. In GIS select parcels not served by water supplier
2. Assign parcel to Rural Irrigation group based upon land use:
   Rural Irrigation Group 1: Rural residential, apartments, trailer park, etc.
   Rural Irrigation Group 2: Farm/vineyard/pasture with residence
3. For **Rural Irrigation Group 1**:
   Measure the turf areas of larger parcels to determine maximum turf area. Limit turf size to 0.375 acres.

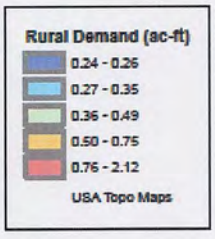
   Calculate water demand based upon parcel size as:

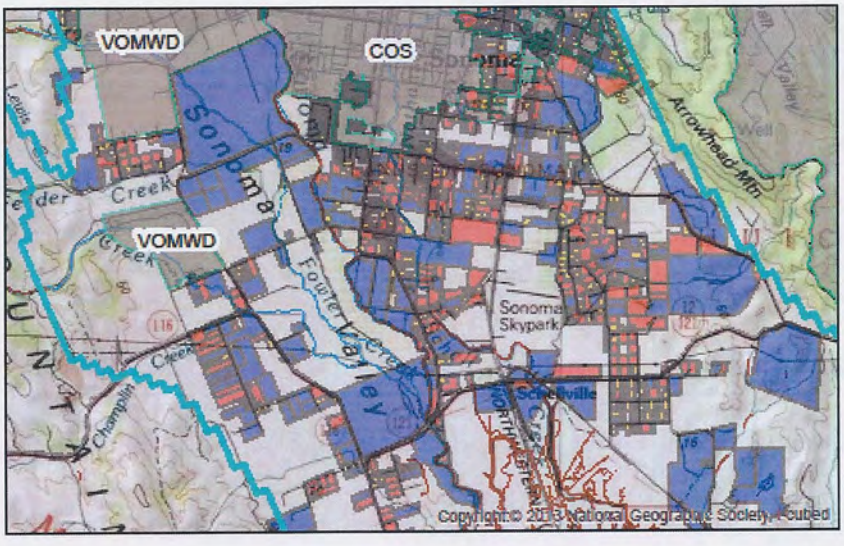
   $Q_{parcel} = Q_{indoor} + \%\ Irrigated \times I_d \times P_{av(i)}$ **EQUATION 1**

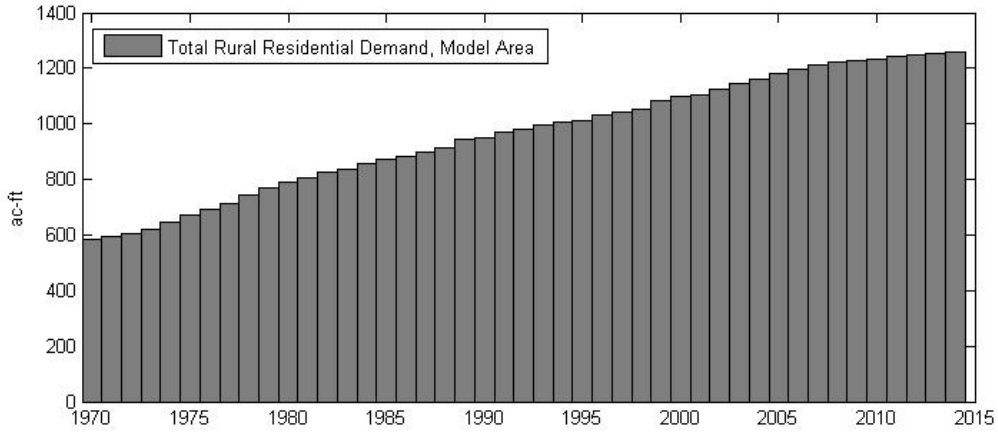
   5.0

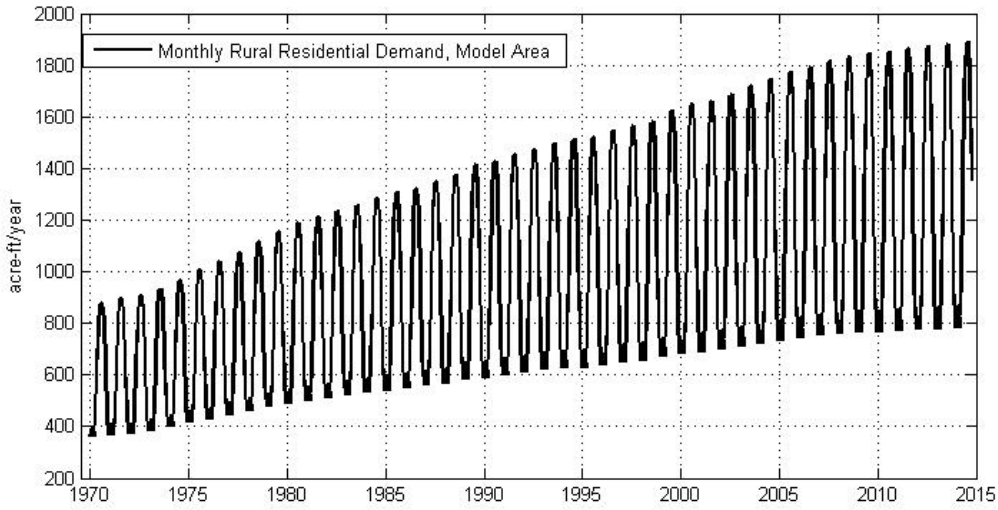
   - % Irrigated = 2.80%
   - I_d = 2.9 ft/year; Turf Irrigation Depth
   - $P_{av(i)}$= Parcel area (acres)
   - In home use (Q_{indoor}) = 0.24 AF/parcel/year
4. For **Rural Irrigation Group 2**:
   $Q_{parcel} = Q_{indoor}$ **EQUATION 2**
5. Initiation of groundwater demand in groundwater model determined by YEARBUILT
6. Apply monthly scaling factor derived from suppliers to yearly demand in order to incorporate seasonality of pumping.

Rural Domestic Pumping






Total Rural Residential Demand, Model Area
ac-ft
0
200
400
600
800
1000
1200
1400
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015


Monthly Rural Residential Demand, Model Area
acre-ft/year
200
400
600
800
1000
1200
1400
1600
1800
2000
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015

Increase Conservation

Concept:
Local Agencies would pursue funding and develop incentives for increasing water conservation by 10 to 20 percent for rural domestic and rural agricultural groundwater users. This would include assessing the potential for funding and implementation of increased rural domestic conservation by reducing demand using tools and incentives available for urban areas under California Urban Water Conservation Council (CUWCC) best management practices (BMPs). The indoor residential program includes high efficiency toilets, fixtures and washers, and the outdoor efficiency program includes water efficient landscaping including replacement of turf, educational outreach and training. Additionally, assessing the potential funding and implementation of increased conservation by rural agricultural (viticulture and non-viticulture) would be evaluated. Finally, the alternative would include continued implementation of the CUWCC BMPs for urban residential programs for indoor and exterior water efficient landscaping and replacement of turf, as well as industrial and commercial water conservation including landscape improvements to reduce irrigation. The technical alternative would be used to help reduce groundwater demands and to increase groundwater levels.

Estimates of Groundwater Demands

Rural Domestic	1,250 afy
Agriculture	4,800 afy
City and VOMWD	650 afy (urban*)
Total	6,700 afy

- excludes urban domestic that have wells for irrigation
-

Water Supply and Availability:
- Yield: the potential yield is estimated:
    - 10 % conservation – 670 afy
    - 20 % conservation – 1,340 afy
- Availability: NA
- Water Quality and Treatment: NA

Supply, Impact, Reliability and Flexibility:
- Timeliness and impact: can be implemented immediately and reductions in demand through conservation are achieved nearly immediately although more so in summer during the irrigation season
- Reliability of supply over the long-term: considered to be composed of reliable, proven technologies
- Flexibility for expansion and/or adaptation to climate change: considered to be flexible for expansion; adaptable to climate as relates to exterior landscaping to drought resistant plants

Environmental Permitting Considerations

- Environmental issues and anticipated support by regulatory agencies: NA
- Potential environmental benefits: project would reduce demand on groundwater which may provide additional water for the environment
- Complexity and/or effort for the permitting process: NA

Legal and Implementability Considerations

- Ability to obtain water rights or regulatory approval: NA
- Complexity of property and right-of-way acquisitions for facilities and pipelines: NA
- Dependency on partners and other agencies: The local agencies would need to continue the existing Sonoma-Marin Saving Water partnerships, and perhaps pursue additional partnerships with the State and NPOs
- Potential for technical innovation/implementation: automated monitoring and data streaming technology could be applied
- Feasibility and implementability: considered a feasible and implementable technology that is applied widely
- Readiness to proceed: existing programs already in place; funding is required

Customer/Stakeholder Acceptability and Benefit

- Anticipated support by Water Agency Contractors and Contractor customers: Contractors are favorable to the proposed alternative; there is broad support from the local community
- Potential to provide a higher level of public safety during disasters: NA
- Potential to provide benefits to other local groundwater users of the broader community: considered to provide added value to other basin users since the alternative would help recover the basin through reduced groundwater demand
- Multi-objective and Supports Watershed Health: the alternative would reduce the demand on groundwater, providing benefits to other groundwater users and the environment

Effectiveness Addressing Groundwater Depletion/Unintended Consequences

Effectiveness at addressing groundwater depletion areas: increased conservation would contribute in the areas of groundwater depletion
Possible unintended consequences of the project: this alternative should have no unintended consequences

Financial, Funding and Leveraging Considerations

- Potential for cost-sharing, leveraging or grant funding: leveraging of combined financing and grant funding and low interest loans possible and grants and loans are available; Proposition 1 provides funds for such projects and recognizes the benefits of such projects
- Ability of the Water Agency to solely finance: For rural areas outside the jurisdiction of local agencies, grant funding would likely be required to finance

Cost

- Capital: Estimated to be approximately $000
- Operations & Maintenance: Estimated to be $0.0
- Unit Water Cost: Estimated to be approximately $000 – 000 per acre-foot

Storm Water Capture and Recharge

Concept:
The Water Agency would develop two to three stormwater capture-recharge projects capable of capturing and recharging approximately 1,000 acre-feet per year. The project would be used to help reduce stormwater flows and increase groundwater recharge for and to increase groundwater levels. Preliminary scoping studies were performed by the Water Agency.

Water Supply and Availability:
- Yield: the potential yield is estimated at 1,000 afy
- Availability: stormwater would be available during storm events
- Water Quality and Treatment: stormwater quality would need to be tested as part of the pre-design and if necessary, and treatment trains incorporated into the project design as appropriate

Supply, Impact, Reliability and Flexibility:
- Timeliness and impact: project could require up to 5 years of additional evaluation and up to 10 years to complete construction, permitting and financing dependent
- Reliability of supply over the long-term: considered to be a reliable supply although some variability with climate fluctuation, and adaptable treatment technologies are proven
- Flexibility for expansion and/or adaptation to climate change: considered to be less flexible for expansion as would require additional expensive land acquisition; climate change could be a factor in terms of potentially affecting yield, availability, or reliability of stormwater

Environmental Permitting Considerations
- Environmental issues and anticipated support by regulatory agencies: An EIR would be need to be developed to address the potential impacts of the project
- Potential environmental benefits: project would provide groundwater protection with replenishment, could provide additional interconnection of existing riparian habitat, and would provide additional seasonal habitat
- Complexity and/or effort for the permitting process: Considered to be a moderately complex permitting and environmental review process, however, enhancing and increasing stormwater capture and groundwater recharge is recognized by the state needed to help achieve groundwater sustainability goals

Legal and Implementability Considerations
- Ability to obtain water rights or regulatory approval: this project would require that the Water Agency obtain surface water rights and file an underground storage supplement, which for permanent water rights could take years and may also trigger legal issues

- Complexity of property and right-of-way acquisitions for facilities and pipelines: there would be no pipelines but siting and acquisition of property for capture and recharge facilities would require either ideally located public property or cooperative landowners
- Dependency on partners and other agencies: The Water Agency would conduct the studies and evaluations for the siting and construction of the facilities and the Water Agency would also plan to own and operate the facilities, however would look for local funding partners for capital investments and operation and maintenance
- Potential for technical innovation/implementation: automated monitoring and data streaming technology could be applied; innovation in recharge pond maintenance to optimize resources and infiltration rates could be considered
- Feasibility and implementability: considered a feasible and implementable technology that is applied widely
- Readiness to proceed: additional site specific studies and analysis is required

Customer/Stakeholder Acceptability and Benefit

- Anticipated support by Water Agency Contractors and Contractor customers: Contractors and customers are anticipated to be generally favorable to the proposed project
- Potential to provide a higher level of public safety during disasters: while not likely to provide much of a benefit for flooding, the project offers additional groundwater supplies that helps to address drought emergencies
- Potential to provide benefits to other local groundwater users of the broader community: considered to provide added value to other basin users since the project would help recover the basin as a recharge project
- Multi-objective and Supports Watershed Health: the project would be designed to meet multiple objectives for flood water reduction, recharge through infiltration, and enhancing habitat

Effectiveness Addressing Groundwater Depletion/Unintended Consequences

Effectiveness at addressing groundwater depletion areas: the project could be placed to specifically address groundwater depletion areas, but so far no ideal site location have been found

Possible unintended consequences of the project: the project if properly designed should have no unintended consequences; issue of concern that will require testing, design and monitoring considerations include potential surface water quality impacts to groundwater, and potential flooding down stream of the capture facilities

Financial, Funding and Leveraging Considerations

- Potential for cost-sharing, leveraging or grant funding: possible for a cost-sharing with other contractors in the basin; leveraging of combined financing and grant funding and low interest loans possible and grants and loans are available; Proposition 1 provides funds for such projects and recognizes the benefits of such projects

- Ability of the Water Agency to solely finance: This project is pretty expensive largely due to property acquisition; this would likely require funding partners and grants to finance

Cost

- Capital: Estimated to be $2.5M to $22M, land acquisition cost dependent
- Operations & Maintenance: Estimated to be $0.025M
- Unit Water Cost: Estimated to be $500 to $1,000 per acre-foot

Groundwater Banking

Concept:
Local Agencies would develop two projects capable of recharging approximately 500 acre-feet per year of imported surface water from the Russian River using aquifer recharge recovery wells. The project would be used to help reduce stormwater flows and increase groundwater recharge for and to increase groundwater levels. A groundwater banking feasibility study was conducted by the Water Agency in partnership with several of its contractors.

Water Supply and Availability:
- Yield: the potential yield is estimated at 500 afy
- Availability: surface water imports would be available during the wet season and in wet years
- Water Quality and Treatment: imported source water would not need to be treated; recovered groundwater quality would need to be tested as part of the pre-design and if necessary, and treatment trains incorporated into the project design as appropriate; recovered groundwater would be chlorinated

Supply, Impact, Reliability and Flexibility:
- Timeliness and impact: iterative pilot projects could require up to 5 years of additional evaluation and up to 10 years to complete construction become fully operational, permitting and financing dependent
- Reliability of supply over the long-term: considered to be a reliable, proven technology with a fairly reliable wet year supply
- Flexibility for expansion and/or adaptation to climate change: considered to be flexible for expansion although would require additional small land acquisition but the footprint is relatively small as compared to infiltration facilities; adaptable to climate as imported water would be provided when it is available from during the wet season

Environmental Permitting Considerations
- Environmental issues and anticipated support by regulatory agencies: a mitigated negative declaration may suffice for a pilot project; an EIR may be required to address the potential impacts of the final project
- Potential environmental benefits: project would provide groundwater protection with replenishment, reducing demand on groundwater which may provide additional water for the environment
- Complexity and/or effort for the permitting process: Considered to be a moderately complex permitting and environmental review process, however, enhancing and groundwater recharge is recognized by the state needed to help achieve groundwater sustainability goals

Legal and Implementability Considerations

- Ability to obtain water rights or regulatory approval: this project may require that the Water Agency obtain additional seasonally wet surface water rights, and would require that local agencies file underground storage supplement permits; for permanent water rights could take years and may also trigger legal issues
- Complexity of property and right-of-way acquisitions for facilities and pipelines: there would be no pipelines for the pilot project but siting and acquisition of property could be required for the full scale project
- Dependency on partners and other agencies: The local agencies would conduct the pilots and necessary work for full scale projects
- Potential for technical innovation/implementation: automated monitoring and data streaming technology could be applied
- Feasibility and implementability: considered a feasible and implementable technology that is applied widely
- Readiness to proceed: pilot projects are ready to proceed due to the completion of the previous feasibility study; funding is required; full scale projects would require a series of iteratively large scale pilots

Customer/Stakeholder Acceptability and Benefit

- Anticipated support by Water Agency Contractors and Contractor customers: Contractors are anticipated to be generally favorable to the proposed project; there is a mix of support and opposition from the local community
- Potential to provide a higher level of public safety during disasters: the project would provide enhanced reliability of the regional water supply during droughts, natural hazard events (e.g., earthquakes), and periods of peak seasonal water demands
- Potential to provide benefits to other local groundwater users of the broader community: considered to provide added value to other basin users since the project would help recover the basin through banking
- Multi-objective and Supports Watershed Health: the project would reduce the demand on groundwater by increasing the use of imported surface water, providing benefits to other groundwater users and the environment

Effectiveness Addressing Groundwater Depletion/Unintended Consequences

Effectiveness at addressing groundwater depletion areas: the pilot projects are not placed in the areas of groundwater depletion

Possible unintended consequences of the project: the project if properly designed should have no unintended consequences; issue of concern that will require testing, design and monitoring considerations include potential recharge water quality impacts to groundwater and clogging

Financial, Funding and Leveraging Considerations

- Potential for cost-sharing, leveraging or grant funding: leveraging of combined financing and grant funding and low interest loans possible and grants and loans

are available; Proposition 1 provides funds for such projects and recognizes the benefits of such projects

- Ability of the Water Agency to solely finance: This project is pretty expensive cost of imported water at $900AF; this would likely require grants to finance

Cost

- Capital: Estimated to be approximately $10M for full scale project
- Operations & Maintenance: Estimated to be $0.4M
- Unit Water Cost: Estimated to be approximately $1000 – 1200 per acre-foot